

# Soyuz craft readied for space station mission

October 21 2012, by Peter Leonard

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A Russian-made Soyuz rocket was erected into place Sunday, ahead of the start of a mission to take a three-man crew to the International Space Station.

For the first time since 1984, the manned launch will take place from Baikonur cosmodrome launch pad 31, while the pad that is normally used, from which Yuri Gagarin began his landmark space mission, is undergoing modernization.

The Soyuz craft remains the only means for international astronauts to reach the space station since the decommissioning of the U.S. Shuttle fleet in 2011.

NASA's Kevin Ford and Russian astronauts Oleg Novitsky and Yevgeny Tarelkin will blast off Tuesday from the Russian-leased facility in southern Kazakhstan and will spend around six months on the orbiting laboratory.

They will join U.S. astronaut Sunita Williams, Russia's Yuri Malenchenko and Aki Hoshide of Japan's [JAXA](#) agency.

In accordance with custom, the entrance to the hangar storing the Soyuz craft slid open in the pre-dawn darkness as Russian and U.S. space officials looked on and took photographs.

By the end of the Soyuz's slow, half-hour trip from storage to the launch site resting on its side on a flatbed railway car, the sun had risen to reveal

a cloudless sky.

Over the following hour, the craft was raised into its upright launch position, setting it off starkly against a backdrop of rolling, tinder-dry steppe.

Russia's [Roscosmos](#) space agency spokesman Alexei Kuznetsov said launch pad 31 had recently been renovated and already been used for an [unmanned mission](#) over the summer.

"Now we need to do similar things at Site No. 1. As soon as that is finished, it will be in a condition to resume launches," he said.

Site No. 1, better known as Gagarin's Start in recognition of the historic 1961 mission, was last overhauled in 1983.

The need for a back-up launch site became particularly acute with the decommissioning of the U.S. shuttle fleet, when Gagarin's Start became the only operating pad available for manned launches to the space station.

The Soyuz's trip will last around two days and end when it docks with the Poisk module in the Russian segment of the ISS.

Ford, Novitsky and Tarelkin are scheduled to remain in orbit until March, covering a busy time at the space station that will include the first ever arrival of "Cygnus," a commercial cargo vehicle from the Orbital Sciences Corp., of Dulles, Virginia, scheduled for December.

Another two commercial SpaceX Dragon craft are also expected over the same period, as are an additional four Russian Progress resupply vehicles.

Of the three men blasting off Tuesday, only Ford has spent any time in orbit. He spent two weeks in space as pilot of the space shuttle Discovery in 2009 on a mission to transport scientific equipment to the ISS.

"They'll be really prepared. Their training has been excellent," said William Gerstenmaier, NASA's associate administrator for space operations, speaking at [launch pad](#) 31.

"They have got time to learn on station, so if there are some little rough spots as they get started, they'll be able to accomplish their tasks," he said.

NASA's Tom Marshburn, Canadian astronaut Chris Hadfield and Russian cosmonaut Roman Romanenko will join the station in December, taking the place of Williams, Malenchenko and Hoshide, who are due to return to earth next month.

In August, a Russian booster rocket failed to place two communications satellites into target orbits, stranding the Russian Express MD-2 and Indonesia's Telkom-3 satellites in a low orbit where they could not be recovered.

A Russian robotic probe designed to study a moon of Mars got stranded in Earth's orbit after its launch in November and eventually came crashing down in January.

Gerstenmaier said the Russian space agency treated crewed programs differently from other launches.

"The hardware that's chosen for this rocket is better quality hardware than they would use for a satellite or for a different launch because of the criticality of what they're doing," he said.

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